



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

May 6, 2013

U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, California 95814-2922

Attention: Tyler Stalker

Subject: Draft Environmental Impact Statement for the Berryessa Creek Project, Santa Clara County, California (CEQ # 2013068)

The U.S. Environmental Protection Agency (EPA) is providing comments on the Draft Environmental Impact Statement (DEIS) for the Berryessa Creek Project. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), our NEPA review authority under Section 309 of the Clean Air Act, and the provisions of the Federal Guidelines promulgated at 40 CFR 230 under Section 404(b)(1) of the Clean Water Act.

EPA provided scoping comments for this project in a letter dated January 3, 2002. We support the Corps' interest in developing an economically justified and environmentally sound flood protection project; however, we are concerned that the effect of sea-level rise on the project has not been sufficiently considered, as required by the Corps own Climate Change Adaptation Policy Statement. We are also concerned that the DEIS does not provide sufficient analysis of temperature effects and maintenance requirements for the project, nor provide sufficient assurance that the Corps is prepared for the possibility of encountering contamination during the project. Additionally, we ask the Corps to clarify whether any project alternatives preclude floodplain terracing and riparian revegetation in the Greenbelt Reach, upstream of the project area.

Based on our concerns about sea-level rise, water quality, and maintenance, we have rated the action alternatives Environmental Concerns – Insufficient Information (EC-2). The enclosed Detailed Comments elaborate on these concerns and our recommendations.

We appreciate the opportunity to review this DEIS. When the Final EIS is released for public review, please send one hard copy and one electronic copy to the address above (mail

code: CED-2). If you have questions, please contact me at (415) 972-3521 or have your staff contact Tom Kelly at kelly.thomasp@epa.gov or (415) 972-3856.

Sincerely,



FOR

Kathleen Martyn Goforth, Manager
Environmental Review Office
Communities and Ecosystems Division

Enclosures: EPA's Detailed Comments
Summary of EPA's Rating Definitions

cc (via email): Dennis Cheong, Santa Clara Valley Water District
Shin-Roei Lee, Regional Water Quality Control Board, San Francisco Bay
Mark Johnson, Regional Water Quality Control Board, San Francisco Bay
Margarete Beth, Regional Water Quality Control Board, San Francisco Bay
Tami Schane, California Department of Fish and Wildlife

Sea-Level Rise

The DEIS does not appear to consider rising sea levels that will result from climate change. The Army Corps' own policy¹ states "it is the policy of USACE to integrate climate change adaptation planning and actions into our Agency's missions, operations, programs, and projects."

A San Francisco Bay Conservation Development Commission report² evaluated the impact of a 16-inch sea level rise by mid-century, and a 55-inch sea level rise by the end of the century to the San Francisco Bay shoreline. In regard to flood control projects, the report states:

With higher Bay water levels and more extreme storm events, Bay water will intrude further into flood control channels making it more difficult for fresh water to drain rapidly from upland areas. This will increase flood risks in locations further upstream. More precise identification of upland areas near creeks and flood channels where this type of flooding may occur is needed for addressing future flood risks. Exploring alternative methods of flood control may be necessary.

Recommendation:

The FEIS should specifically consider the effects of rising sea level on the Berryessa Creek project.

Water Resources

Temperature Impacts

The DEIS notes that current temperatures, as high as 84.7°F, reduce the habitat available to native fish and amphibians in Berryessa Creek, which prefer cooler temperatures (p.4-24). Water temperature is a key indicator of poor water quality in Berryessa Creek, yet the DEIS considers shading the creek as an "aesthetic feature" (p. 3-24). Only alternative 4/d appears to address high water temperatures by including more than 8 acres of trees and vegetation to shade the creek (p. 3-57). The benefits of shading proposed by this alternative are described as "less than significant," a "slightly decreased water temperature," (p. 5-20) and "minimal" (Table 5-10), but the DEIS provides no basis for these conclusions.

¹ USACE Climate Change Adaptation Policy Statement, effective June 3, 2011, <<http://www.corpsclimate.us/docs/USACEAdaptationPolicy3June2011.pdf>>

² Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on its Shoreline, San Francisco Bay Conservation and Development Commission, October 6, 2011 <<http://www.bcdc.ca.gov/BPA/LivingWithRisingBayvst.pdf>>

Recommendations:

The FEIS should include additional discussion, and if possible, quantification of the shading benefits of Alternative 4/d and consider the feasibility of modifying alternatives 2A/B and 2B/d to add trees to reduce the temperature of Berryessa Creek.

Cumulative Impacts

NEPA requires the evaluation of cumulative impacts that are reasonably foreseeable [40 CFR 1508.8]. The DEIS analyzed two alternatives, 2B/d and 4/d, that modeled a bypass channel upstream of Interstate 680 and the DEIS project area (p. 3-50). The bypass is a potential project of the Santa Clara Valley Water District, the local project sponsor for the Berryessa Creek Project. It would convey water around the Greenbelt Reach to alleviate flooding in the upper watershed (3-53). Given the modeling prepared to support it, the upstream bypass appears to be reasonably foreseeable project that could result in cumulative impacts that should have been described in greater detail in the DEIS.

The Santa Clara Valley Water District also investigated floodplain terrace and native riparian revegetation of the Greenbelt Reach as a way to provide flood protection and mitigation within the Greenbelt Reach. It was the focus of coordinated agency comments by EPA and the San Francisco Bay Regional Water Quality Control Board (RWQCB) in support of a terracing and revegetation approach at the Corps' Upper Berryessa F4A conference held on August 17, 2006. At that time, it was also considered a potential element of the Corps' Berryessa Creek Project. While we understand the reason that flood control measures upstream of I-680 were not considered in the DEIS (i.e., the Corps' "800 cfs rule" and the lack of economic justification, p. 3-47 and 3-48), we seek to ensure that the Corps' project will not preclude Greenbelt terracing and revegetation, which EPA and RWQCB have supported.

Recommendation:

The FEIS should discuss the cumulative impacts of the Greenbelt bypass, and clarify whether any of the project alternatives would preclude floodplain terracing and riparian revegetation of the Greenbelt Reach.

Groundwater Contamination

The DEIS acknowledges Jones Chemical Company and Great Western Chemical Company as sources of hazardous, toxic and radiologic waste. Based on discussions with the RWQCB, the Corps is likely to encounter contamination from the Jones Chemical site³. While the DEIS discusses the potential to encounter contamination from these sites (5-19), and mentions the preparation of Best Management Plans to minimize impacts, it provides no discussion of treatment technologies, permitting requirements, appropriate discharge limits nor reuse potential (e.g. dust control). Without adequate preparation, unexpectedly encountering contaminated groundwater during de-watering could cause project delays and

³ Person communication between Mark Johnson, RWQCB, San Francisco Bay and Tom Kelly, U.S. EPA, on April 11, 2013.

cost increases. Additionally, dewatering wells could draw contaminated groundwater away from remediation wells designed to contain the plume.

Recommendations:

The Army Corps should coordinate closely with the Regional Water Quality Control Board, so that dewatering does not unexpectedly withdraw contaminated groundwater nor expand the plume beyond the control of wells designed to control contaminant migration.

The FEIS should include Best Management Plans for the treatment and discharge of contaminated groundwater, or an outline of the plan that would be developed later.

The FEIS should discuss requirements for treatment and discharge of contaminated groundwater.

The FEIS should clearly describe the circumstances under which potentially contaminated soil would be sampled, and contaminated soil would be managed as hazardous waste rather than redeposited in levees or the adjacent road base.

Permanent Impacts

The DEIS included more discussion of the construction impacts than operational impacts of the project. As the DEIS frequently noted, construction impacts are temporary, so an added focus on operational impacts may be more informative for the Corp's decision-maker.

Recommendation:

The FEIS should expand the discussion of permanent impacts, such as sediment loading, nutrient loading, temperature, and stream velocities, particularly where more detailed information is available in appendices.

The Environmentally Preferred Alternative

The DEIS selects Alternative 2A/d as the environmental preferred (and environmentally superior under CEQA) alternative (p. 5-68), but includes no discussion of the relative magnitude of benefits and adverse effects (e.g. temperature, sediment loading and maintenance) of each alternative.

Recommendation:

The FEIS should explain the basis for the selection of Alternative 2A/d as the environmentally preferred alternative.

Tree Removal and Mitigation

The DEIS discusses the need for tree removal (e.g. p. 3-24). Because Berryessa Creek is a water of the state, the Regional Board may require mitigation when trees are shading the creek, which does not appear to be discussed. The DEIS does describe the Corps Levee Vegetation Management Policy on page 3-48, which requires a "15-foot vegetation-free

zone outside of the proposed levee toes or floodwalls.” The levee vegetation policy potentially conflicts with, or limits, opportunities to mitigate tree removals along the creek.

Recommendations :

Discuss, in the FEIS, the impact of the Levee Vegetation Management Policy on the Corps’ obligations to mitigate tree removals and other impacts that increase water temperature.

Identify, in the FEIS, trees to be removed as part of the project, for which mitigation of the removal would be required by state or local regulations.

Maintenance

One of the goals of the project is reducing maintenance following project construction (p. 1-1). Current maintenance is described as “sediment removal activities designed to restore flood conveyance capacity, vegetation management in and around streams and canals, and bank protection” (p. 4-30). While Table 6-11 lists the annual maintenance costs for each alternative, the DEIS does not specify the activities associated with the maintenance costs. It does explain that Alternatives 2A/d and 2B/d include an access road built inside levees and floodwalls (p. 3-51 and 3-53), making maintenance less expensive (p. 3-57), but the DEIS does not clarify the reason maintenance of Alternative 2A/d is less than Alternative 2B/d. Additionally, Alternative 4 includes 15-foot vegetation-free zones on the outside of both floodwalls, which would allow relatively easy access for maintenance. While the road inside the levee would allow for easy access, it likely would result in additional costs, because the road could be overtopped as frequently as once every 10 years (0.1 to 0.04 exceedance probability, p. 3-53).

Recommendation:

The FEIS should include a breakdown of maintenance activities, frequency, extent and costs, as well as any assumptions used to estimate costs.

Air Quality

We acknowledge that the air quality impacts of the NED Plan, Alternative A2/d, are less than significant, and the DEIS includes a thorough list of mitigation measures addressing air quality (p. 5-9 to 5-11). The Corps could further reduce the project’s emissions and possibly reduce complaints through careful planning and the use of clean diesel equipment meeting the most stringent of applicable Federal⁴ or State Standards⁵.

Recommendations:

Commit, in the FEIS, to:

- Request that bidding construction contractors provide information on emissions from construction equipment (e.g. Tier 3 off-road diesel engines or engines retrofitted to meet equivalent emissions) and give preference

⁴ EPA's website for nonroad mobile sources is <http://www.epa.gov/nonroad/>.

⁵ For ARB emissions standards, see: <http://www.arb.ca.gov/msprog/offroad/offroad.htm>.

(among other factors such as low cost) to contractors employing clean construction fleets.

- Avoid the use of portable generators where power can be practically obtained from the local power grid.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.

Include, in the FEIS, a map of the sensitive receptors mentioned in the DEIS, and commit to locate operating construction equipment and staging zones away from these sensitive receptors (e.g. the opposite side of the creek), to the extent practicable.

Editorial Note

Several pages (e.g. 3-55) include a note at the top stating, “[t]he information is distributed solely for the purpose of pre-dissemination peer review under applicable information quality guidelines. It has not been formally disseminated by the Corps. It does not represent and should not be construed to represent any agency determination or policy.” This note should be removed from the FEIS.

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

